

# Geographical Studies

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Department Website: <http://geography.uchicago.edu>

## Program of Study

The discipline of geography contributes to an understanding of society by exploring the Earth's environment and its interactions with human life, by inquiring into cultures and societies from the perspective of area study, and by investigating problems of spatial organization. The BA program in geographical studies offers a distinctive focus for general education and provides a background both for advanced specialization in the discipline and for study in other fields. Solid grounding in modern geography can lead to careers in government service, environmental consulting, marketing, publishing, planning, and teaching at all levels.

## Program Requirements

The BA degree in geographical studies calls for the satisfactory completion of eleven courses, at least eight of which must be in geographical studies. These include the orientation course (GEOG 20000 Orientation Seminar); an introduction to Geographic Information Systems/GIS (GEOG 28201 Intro to Geographic Information Systems); the senior seminar (GEOG 29800 Senior Seminar); and at least eight additional geography courses, up to three of which may be in approved related fields. A BA thesis is prepared in connection with the senior seminar.

## Summary of Requirements

GEOG 20000	Orientation Seminar	100
GEOG 28201	Intro to Geographic Information Systems	100
Eight additional geographical studies courses; up to three may be in approved related fields		800
GEOG 29800	Senior Seminar	100
BA thesis		
Total Units		1100

## Grading

All courses counted toward the geographical studies major must be taken for quality grades.

## Research Grants

Geographical studies students may apply for small grants from the Ada Espenshade Wrigley Fund in support of extraordinary expenses connected with research leading to their BA thesis.

## Honors

Honors are awarded to students with an overall GPA of 3.0 or higher who submit a BA thesis that is judged to be outstanding.

## Awards

Each year the Committee on Geographical Studies nominates fourth-year students for an Outstanding Senior in Geography Award from the Illinois Geographical Society and an Award for Excellence from the National Council for Geographic Education and the Association of American Geographers.

## Geographical Studies Courses

### **GEOG 20100. Cultural Geography. 100 Units.**

This course examines the two main concerns of this field of geography: (1) the logic and pathology revealed in the record of the human use and misuse of the Earth, and (2) the discordant relationship of the world political map with more complicated patterns of linguistic and religious distribution.

Instructor(s): Staff Terms Offered: Winter

Equivalent Course(s): ENST 25900, GEOG 30100

### **GEOG 20500. Introduction to Spatial Data Science. 100 Units.**

Spatial data science consists of a collection of concepts and methods drawn from both statistics and computer science that deal with accessing, manipulating, visualizing, exploring and reasoning about geographical data. The course introduces the types of spatial data relevant in social science inquiry and reviews a range of methods to explore these data. Topics covered include formal spatial data structures, geovisualization and visual analytics, spatial autocorrelation, cluster detection regionalization and spatial data mining. An important aspect of the course is to learn and apply open source software tools for the analysis of spatial data, such as R and GeoDa.

Instructor(s): L. Anselin Terms Offered: Autumn

Prerequisite(s): A multivariate statistics course: familiarity with GIS is helpful, but not necessary

Equivalent Course(s): SOCI 30253, MACS 54000, SOCI 20253

**GEOG 21900. Historical Geography of the United States. 100 Units.**

This course examines the spatial dynamics of empire, the frontier, regional development, the social character of settlement patterns, and the evolution of the cultural landscapes of America from pre-European times to 1900. All-day northern Illinois field trip required.

Instructor(s): M. Conzen Terms Offered: Autumn

Note(s): This course offered in even years.

Equivalent Course(s): GEOG 31900,HIST 28800,HIST 38800

**GEOG 22100. Changing America in the Twentieth Century. 100 Units.**

This course explores the regional organization of U.S. society and its economy during the pivotal twentieth century, emphasizing the shifting dynamics that explain the spatial distribution of people, resources, economic activity, human settlement patterns, and mobility. We put special focus on the regional restructuring of industry and services, transportation, city growth, and cultural consumption. Two-day weekend field trip to the Mississippi River required.

Instructor(s): M. Conzen Terms Offered: Winter

Note(s): This course offered odd years.

Equivalent Course(s): GEOG 32100,HIST 27506,HIST 37506

**GEOG 22700. Urban Structure and Process. 100 Units.**

This course reviews competing theories of urban development, especially their ability to explain the changing nature of cities under the impact of advanced industrialism. Analysis includes a consideration of emerging metropolitan regions, the microstructure of local neighborhoods, and the limitations of the past American experience as a way of developing urban policy both in this country and elsewhere.

Instructor(s): F. Stuart Terms Offered: Spring

Equivalent Course(s): CRES 20104,GEOG 32700,SOCI 30104,SOSC 25100,ENST 20104,SOCI 20104

**GEOG 23500. Urban Geography. 100 Units.**

This course examines the spatial organization and current restructuring of modern cities in light of the economic, social, cultural, and political forces that shape them. It explores the systematic interactions between social process and physical system. We cover basic concepts of urbanism and urbanization, systems of cities urban growth, migration, centralization and decentralization, land-use dynamics, physical geography, urban morphology, and planning. Field trip in Chicago region required. This course is part of the College Course Cluster, Urban Design.

Instructor(s): M. Conzen Terms Offered: Winter

Note(s): This course offered in even years.

Equivalent Course(s): GEOG 33500

**GEOG 23700. Placing Chicago: Geographical Perspectives on a Global City. 100 Units.**

The course examines the geographical dimensions of Chicago as a global city at several spatial scales, including its international role in the world system of cities, its structure as a metropolitan urban region, as a central city, and as a mosaic of neighborhoods. The course will focus on primary and secondary readings, field trips, class discussion, and a final research project exploring the concept of place in the Chicago context. Weekly topics will include economic organization, city-suburb dynamics, environmental conditions, land use morphology, spatial mobility, social uses of space, and long-term planning and sustainability. The central theme concerns the spatial conditions that drive the formation of place identity and landscape evolution, and how these shape the way Chicagoans adapt to the geographical reality of urban life. This course is part of the College Course Cluster, Urban Design.

Instructor(s): M. Conzen Terms Offered: Spring. This course offered in even years.

Prerequisite(s): Open to Chicago Studies Program students.

**GEOG 24000. Chicago Neighborhoods. 100 Units.**

This course is an applied learning experience in which students explore the many dimensions of Chicago neighborhoods, with a particular focus on the built environment and how it impacts—and is impacted by—the social and economic life of the city. Students will observe, interpret, and represent neighborhoods through a series of exercises designed to deepen knowledge about the significance and meaning of neighborhood form. Readings and fieldwork will engage students in neighborhood analysis and observation techniques that explore contemporary issues about public life, diversity, and social equity.

Instructor(s): E. Talen Terms Offered: Autumn

Equivalent Course(s): GEOG 34000,SOSC 36000,PBPL 24000,SOSC 26000

**GEOG 24200. Urban Design Studio. 100 Units.**

Based on prior course work in either neighborhood or pedestrian-scale urbanism, students in this course will have the chance to formulate a proposal for intervention to address an issue previously uncovered. The proposal could be in the form of a written policy, two-dimensional plan, or three-dimensional design, depending on student interest. Example topics include policy proposals to address issues of gentrification and displacement, proposals to increase the spatial equity and accessibility of public space, three-dimensional visioning of future infill on vacant land, or development of a new kind of urban code to encourage pedestrian life.

Instructor(s): E. Talen Terms Offered: Spring

Equivalent Course(s): PBPL 26002,ENST 26002,SOSC SOSC

**GEOG 24300. Chicago by Design. 100 Units.**

This course examines the theory and practice of urban design at the scale of block, street, and building—the pedestrian realm. Topics include walkability; the design of streets; architectural style and its effect on pedestrian experience; safety and security in relation to accessibility and social connection; concepts of urban fabric, repair, and placemaking; the regulation of urban form; and the social implications of civic spaces. Students will analyze normative principles and the debates that surround them through readings and discussion as well as firsthand interaction with the urbanism of Chicago. This course is part of the College Course Cluster, Urban Design.

Instructor(s): E. Talen Terms Offered: Autumn

Equivalent Course(s): PBPL 26003,ENST 26003,SOSC 26003

**GEOG 25300. Seminar: Problems in the Human Geography of the Middle East. 100 Units.**

This course includes a review and cartographic demonstration of habitat types, modes of livelihood, and ethnic distribution. Students then present reports on selected aspects of human geography.

Instructor(s): Staff Terms Offered: Spring

**GEOG 25500. Biogeography. 100 Units.**

This course examines factors governing the distribution and abundance of animals and plants. Topics include patterns and processes in historical biogeography, island biogeography, geographical ecology, areography, and conservation biology (e.g., design and effectiveness of nature reserves).

Instructor(s): B. Patterson (odd years, lab), L., Heaney (even years, discussion) Terms Offered: Winter

Prerequisite(s): Three quarters of a Biological Sciences Fundamentals sequence and a course in either ecology, evolution, or earth history; or consent of instructor

Equivalent Course(s): ENST 25500,EVOL 45500,GEOG 35500,BIOS 23406

**GEOG 26100. Roots of the Modern American City. 100 Units.**

This course traces the economic, social, and physical development of the city in North America from pre-European times to the mid-twentieth century. We emphasize evolving regional urban systems, the changing spatial organization of people and land use in urban areas, and the developing distinctiveness of American urban landscapes. All-day Illinois field trip required. This course is part of the College Course Cluster, Urban Design.

Instructor(s): M. Conzen Terms Offered: Autumn

Note(s): This course offered in odd years.

Equivalent Course(s): ENST 26100,GEOG 36100,HIST 28900,HIST 38900

**GEOG 27150. Urban Design with Nature: Assessing the Social and Natural Realms in the Calumet Region. 100 Units.**

This course will use the Calumet region as a laboratory for evaluating the social, environmental, and economic effects of alternative forms of human settlement. Students will be introduced to the basics of geographic information systems (GIS) and use GIS to map the Calumet region's "place types" – human habitats that vary along an urban-to-rural transect, as well as the ecosystem services provided by the types. They will then evaluate these place types using a range of social, economic and environmental criteria. In this way, students will evaluate the region's potential to simultaneously realize economic potential, protect environmental health, and provide social connectivity.

Instructor(s): Sabina Shaikh and Emily Talen Terms Offered: Spring

Equivalent Course(s): PBPL 27155,ENST 27150

**GEOG 27221. Sustainable Urbanism. 100 Units.**

This course explores cutting-edge solutions to today's interrelated challenges of decarbonizing the economy, reversing the obesity epidemic, and replacing sprawl. In addition to learning about the current state of sustainable urban planning and design, students will apply to the Calumet region a collection of future-forward urban design strategies to build prosperous and sustainable urban communities that can thrive for years to come. Topics include community organizing; public health, safety, and welfare; governance; neighborhood planning and design; stormwater management; density, and net-zero-energy building design. While not a studio class, there will be opportunities to practice spatial design drawing, community engagement tactics, and sustainability metrics.

Instructor(s): Doug Farr Terms Offered: Spring

Equivalent Course(s): PBPL 27221,ENST 27221

**GEOG 27325. Urban Ecology in the Calumet Region. 100 Units.**

This course will give students a strong foundation in the local ecology of the Calumet. Students will use local research and habitats to understand fundamental concepts in ecology and the scientific method. Students will explore some of these habitats during field trips with scientists and practitioners. The course focus will be on urban ecology in the region, whether these fundamental ecological concepts are applicable, what other factors need to be considered in the urban ecosystem, and the role humans have in restoring natural and managing novel ecosystems, among other topics.

Instructor(s): Alison Anastasio Terms Offered: Spring

Prerequisite(s): Enrollment is based on acceptance to the Chicago Studies Quarter: Calumet

Equivalent Course(s): PBPL 27325,ENST 27325

**GEOG 28201. Intro to Geographic Information Systems. 100 Units.**

This course introduces students to the concepts and applications of geographic information systems (GIS). The course provides a basic foundation of spatial analysis and GIS with laboratory applications in particular techniques and methodology utilizing ESRI's ArcGIS 10. Students will learn to perform spatial analyses and communicate their results through cartography, along with introduction to such concepts as spatial data collection, remote sensing, and database design.

Instructor(s): T. Schuble Terms Offered: Autumn

Note(s): Graduate students will be allowed to enroll for section 2

Equivalent Course(s): GEOG 38201

**GEOG 28400. Intermediate GIS. 100 Units.**

This course covers the development of cartographic and computer-based geographic information system techniques applicable to student research topics.

Instructor(s): R. Greene Terms Offered: Winter

Prerequisite(s): GEOG 28201, GEOG 38201

Equivalent Course(s): GEOG 38400

**GEOG 28600. Advanced GIS Analysis. 100 Units.**

This course will cover advanced spatial methodology and concepts through GIS such as measures of central tendency, pattern analysis, spatial relationship definition, and spatial regression using ArcGIS and various OpenSource GIS software packages. Other subjects will demonstrate building complex spatial models and identifying situations where application and automation of complex spatial models and methods should be applied, and how the automation is implemented through Python scripting.

Instructor(s): T. Schuble Terms Offered: Spring

Prerequisite(s): GEOG 28201, GEOG 38201, GEOG 28400, GEOG 38400

Equivalent Course(s): GEOG 38600

**GEOG 28700. Readings in Spatial Analysis. 100 Units.**

This independent reading option is an opportunity to explore special topics in the exploration, visualization and statistical modeling of geospatial data.

Instructor(s): L. Anselin Terms Offered: Autumn, Spring, Winter. Students are required to submit the College Reading and Research Course Form. Available for either quality grades or for P/F grading.

Equivalent Course(s): GEOG 38700

**GEOG 28800. History of Cartography. 100 Units.**

This course offers a grand overview of the key developments in mapmaking throughout history worldwide, from pre-literate cartography to the modern interactive digital environment. It looks at the producers, their audience, the technologies and artistic systems used, and the human and global contexts in which they developed. The course also draws on the extensive map collections of Regenstein Library.

Instructor(s): G. Danzer Terms Offered: Spring

Equivalent Course(s): GEOG 38800

**GEOG 28900. Readings in Urban Planning and Design. 100 Units.**

This independent reading option is an opportunity to explore contemporary debates and theoretical arguments involved in the planning and design of cities.

Instructor(s): E. Talen Terms Offered: Autumn, Spring, Winter. Students are required to submit the College Reading and Research Course Form. Available for either quality grades or for P/F grading.

Equivalent Course(s): GEOG 38900

**GEOG 29100. Undergraduate Tutorial. 100 Units.**

This course is intended for individual study of selected geographical problems.

Terms Offered: Autumn, Winter, Spring

Prerequisite(s): Consent of instructor.

Note(s): Available for either quality grades or for P/F grading.

**GEOG 29700. Readings in Special Topics in Geography. 100 Units.**

A program of supervised reading of a special topic in geography. Students will meet periodically with the instructor to discuss the readings, and submit a final paper critically reviewing the conceptual orientation and substantive content of the readings.

Instructor(s): M. Conzen, L. Anselin, E. Talen. Terms Offered: Autumn, Spring, Winter

Prerequisite(s): Consent of instructor.

Note(s): Consent of instructor. Students are required to submit the College Reading and Research Course Form. Available for either quality grades or for P/F grading.

**GEOG 29800. Senior Seminar. 100 Units.**

This course is designed for development of the BA thesis.

Instructor(s): M. Conzen Terms Offered: Winter

Prerequisite(s): Open to students with fourth-year standing who are majoring in geographical studies.

Note(s): Must be taken for a quality grade.





### Font Notice

This document should contain certain fonts with restrictive licenses. For this draft, substitutions were made using less legally restrictive fonts. Specifically:

Times was used instead of Trajan.

Times was used instead of Palatino.

The editor may contact Leepfrog for a draft with the correct fonts in place.